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EXAMINER

YODER III, CHRISS S

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2612

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/713,041	Applicant(s) YAJIMA, SHINYA	
	Examiner Chriss S. Yoder, III	Art Unit 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 14-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments, see pages 12-14, filed September 17, 2004, with respect to the rejection(s) of claim(s) 1 under 35 USC § 102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Morofuji et al. (US Patent # 6,208,377) and Ohkawara et al. (US Patent # 6,630,950).

Applicant's arguments, see pages 16-18, filed September 17, 2004, with respect to the rejection(s) of claim(s) 2-3 and 5 under 35 USC § 102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Miyamoto et al (US Patent # 6,332,060).

Applicant's arguments filed September 17, 2004 with respect to claims 6, 7, 9, and 10-13 have been fully considered but they are not persuasive.

Applicant argues, with respect to claim 6, that Imafuji '177 does not disclose "a controlling device that keeps the vibration isolating device at an origin until a position of the vibration isolating device for preventing the image blur is the origin after the switching device turns on the vibration isolation" and "moves the vibration isolating device according to the vibration after the position of the vibration isolating device for preventing the image blur is the origin", and that the actual correction does not take place until the correction position is determined to be at the origin. In response to

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applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the actual correction does not take place until the correction position is determined to be at the origin) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Therefore, the claim has been analyzed and rejected as claimed, which reads:

“a controlling device that keeps the vibration isolating device at an origin until a position of the vibration isolating device for preventing the image blur is the origin after the switching device turns on the vibration isolation and moves the vibration isolating device according to the vibration after the position of the vibration isolating device for preventing the image blur is the origin”.

which has been interpreted to mean that the isolating device is held at the origin until the position of the isolating device is the origin, and vibration is compensated after that time (i.e. if the device is held at the origin, then the position is immediately at the origin, and the vibration is immediately compensated after that time).

Applicant points out that the Office Action, claims 10-13 are stated to be rejected under 35 USC 102(b) in view of Miyamoto et al (US Patent # 6,332,060), but that the rejection of the switching device is in correctly cited as column 4, line 65 – column 5, line 5 and figure 5, step S22. The Examiner has corrected the citation in the rejection below to indicate the section of Miyamoto which discloses the switching device, and in doing so, the rejection under 35 USC 102(b) in view of Miyamoto et al (US Patent #

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6,332,060) is upheld (therefore, Imafuji '177 has not been relied upon for the rejection of claims 10-13).

Applicant also argues, with respect to claims 10-13, that Miyamoto does not disclose the use of "a controlling device that starts moving the vibration isolating device with a driving amount that is smaller than that for preventing the image blur when the switching device turns on the vibration isolation and drives the vibration isolating device while gradually increasing the driving amount to that for preventing the image blur" because the "driving amount" as recited in claim 10 is more analogous to the driving duty as disclosed in Miyamoto and that the lens velocity VR has no relation ship to the driving amount. However, a closer examination of Miyamoto, Figures 11, 12, and 13; column 21, line 52- column 22, line 45 (more specifically column 22, lines 14-25) as cited by applicant, Miyamoto discloses that as the driving duty varies, so does the lens velocity (i.e. when the isolation device is turned on, the driving duty/lens velocity VR are gradually increased until they reach the target lens velocity VC for 100% correction).

Specification

The title of the invention is incorrect. A new title is required that is clearly indicative of the invention to which the claims are directed. The current title reads: "Vibration Isolating Device Method and System for Correcting Image **Blue** in a Camera"

The following title is suggested: "Vibration Isolating Device Method and System for Correcting Image **Blur** in a Camera"

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 2-5 and 10-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Miyamoto et al (US Patent # 6,332,060).
2. In regard to claim 2, note Miyamoto discloses the use of a vibration isolator that prevents an image blur by moving a vibration isolating device according to a vibration of an apparatus determined by a vibration determining device (column 18, line 62- column 19, line 17; and figure 11: 102, 104, 105, 104, 113, and 119), the vibration isolator comprising a switching device that turns on and off vibration isolation (column 31, lines 51-63; and figure 20: S1007-1010, when the shutter button is pressed half way, it is considered to be turning the vibration control on), a controlling device that keeps the vibration isolating device at a position until a predetermined time passes after the switching device turns on the vibration isolation and moves the vibration isolating device according to the vibration after the predetermined time passes (column 34, lines 6-31 and figure 23: S1305-1305; the centering process in step S1012 of figure 20 is seen in figure 23, and the isolating device is held at the initial position until a set time passes).

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3. In regard to claim 3, note Miyamoto discloses that the controlling device stops the vibration isolating device at a position when the switching device turns off the vibration isolation (column 26, lines 35-41; column 32, lines 26-31; and figure 20: S1015-S1019; when the shutter button is released ,S1015, it is considered to be turning off the vibration isolating device).
4. In regard to claim 4, note Miyamoto discloses the use of a controlling device that gradually decreases a driving amount of the vibration isolating device to stop the vibration isolating device at a position after the switching device turns off the vibration isolation (column 26, lines 35-41; column 32, lines 26-31; and figure 20: S1015-S1019; when the shutter button is released ,S1015, it is considered to be turning off the vibration isolating device).
5. In regard to claim 5, note Miyamoto discloses that the controlling device does not calculate a driving signal for driving the vibration isolating device when the vibration isolation is off (column 32, lines 27-31; the shake detection sensor stops detection and the lens is held in place) and starts calculating the driving signal after the switching device turns on the vibration isolation (column 31, lines 24-27; the shake detection sensor starts calculating when the shutter button is pressed half way).
6. In regard to claim 10, note Miyamoto discloses the use of a vibration isolator that prevents an image blur by moving a vibration isolating device according to a vibration of an apparatus determined by a vibration determining device (column 14, lines 40-56; figure 3: 60X-60Y; and figure 2: 1), the vibration isolator comprising a switching device that turns on and off vibration isolation (column 31, lines 51-63; and figure 20: S1007-

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1010, when the shutter button is pressed half way, it is considered to be turning the vibration control on), a controlling device that starts moving the vibration isolating device with a driving amount that is smaller than that for preventing the image blur when the switching device turns on the vibration isolation and drives the vibration isolating device while gradually increasing the driving amount to that for preventing the image blur (column 21, line 52- column 22, line 45 and column 26, lines 24-27; when the isolation device is turned on, the driving duty/lens velocity VR are gradually increased until they reach the target lens velocity VC for 100% correction).

7. In regard to claim 11, note Miyamoto discloses that the controlling device stops the vibration isolating device at a position when the switching device turns off the vibration isolation (column 26, line 35-41; column 32, lines 26-31; and figure 20: S1015-S1019, when the shutter button is released it is considered to be turning off the isolating device).

8. In regard to claim 12, note Miyamoto discloses the use of a controlling device that gradually decreases a driving amount of the vibration isolating device to stop the vibration isolating device at a position after the switching device turns off the vibration isolation (column 26, lines 35-41; column 32, lines 26-31; and figure 20: S1015-S1019; when the shutter button is released ,S1015, it is considered to be turning off the vibration isolating device).

9. In regard to claim 13, note Miyamoto discloses that the controlling device does not calculate a driving signal for driving the vibration isolating device when the vibration isolation is off (column 32, lines 27-31; the shake detection sensor stops detection and

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the lens is held in place) and starts calculating the driving signal after the switching device turns on the vibration isolation (column 31, lines 24-27; the shake detection sensor starts calculating when the shutter button is pressed half way).

10. Claims 6-7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Imafuji et al. (US Patent # 5,617,177).

11. In regard to claim 6, note Imafuji discloses the use of a vibration isolator that prevents an image blur by moving a vibration isolating device according to a vibration of an apparatus determined by a vibration determining device (column 2, lines 23-41; and figure 1: 1-7), the vibration isolator comprising a switching device that turns on and off vibration isolation (column 4, line 65 – column 5, line 5; and figure 5: S22, when the shutter button is pressed half way, it is considered to be turning the vibration control on), and a controlling device that keeps the vibration isolating device at an origin until a position of the vibration isolating device for preventing the image blur is the origin after the switching device turns on the vibration isolation and moves the vibration isolating device according to the vibration after the position of the vibration isolating device for preventing the image blur is the origin (column 5, lines 15-16; and figure 5: S24, the vibration isolator is set to an initial position when the isolator is turned on and move the isolating device according to the vibration after the position of the vibration isolating device for preventing the image blur is the origin).

12. In regard to claim 7, note Imafuji discloses that the controlling device stops the vibration isolating device at a position when the switching device turns off the vibration

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isolation (column 5, line 65 –column 6 line 20; and figure 5: S30-S34, when the shutter button is released it is considered to be turning off the isolating device).

13. In regard to claim 9, note Imafuji discloses that the controlling device does not calculate a driving signal for driving the vibration isolating device when the vibration isolation is off (column 6, lines 1-20; the shake detection sensor stops detection and the lens is held in place) and starts calculating the driving signal after the switching device turns on the vibration isolation (column 5, lines 1-21; the shake detection sensor starts calculating when the shutter button is pressed half way).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morofuji et al. (US Patent # 6,208,377) in view of Ohkawara et al. (US Patent # 6,630,950).

15. In regard to claim 1, note Morofuji discloses the use of a vibration isolator that prevents an image blur due to a vibration of a camera by moving a correcting optical system (column 22, lines 50-64), the vibration isolator comprising a vibration speed determining device that determines a speed of the vibration (column 22, lines 50-53), an integrating device that integrates the speed determined by the vibration speed determining device (column 23, lines 1-6), and a controlling device that controls a

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position of the correcting optical system according to the integrated value (column 23, lines 1-12 and figure 22: 305 and 308; the integrated value is sent to the driving circuit to control the correcting optical system).

Therefore, it can be seen that the Morofuji device lacks a differentiating device that differentiates the speed determined by the vibration speed determining device and a correcting device that corrects the integrated value calculated by the integrating device to substantially zero when the differentiated value calculated by the differentiating device is substantially zero.

Ohkawara discloses the use of a differentiating device that differentiates the speed determined by the vibration speed determining device (column 28, lines 5-15 and 35-50; the velocity signal is differentiated to determine the acceleration in order to detect panning and tilting) and by combining the Ohkawara device to detect panning and tilting with the Morofuji device, Morofuji teaches the use of a correcting device that corrects the integrated value calculated by the integrating device to substantially zero when the differentiated value calculated by the differentiating device is substantially zero (column 23, lines 22-43; Morofuji teaches that when the device is panning or tilting, i.e. constant velocity and zero acceleration, that the correction value is corrected to zero, and by combining with Ohkawara to use acceleration for the pan/tilt detection, one would reach applicant's invention). Ohkawara teaches that the use of a differentiating device that differentiates the speed determined by the vibration speed determining device is preferred in order to strengthen the anti-vibration control (column 28, lines 35-50). Therefore, it would have been obvious to one of ordinary skill in the art to modify

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the Morofuji device to include the use of a differentiating device and a correcting device as suggested by Ohkawara.

16. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Imafuji et al. (US Patent # 5,617,177) in view of Miyamoto et al (US Patent # 6,332,060).

17. In regard to claim 8, note Imafuji discloses the use of a vibration isolator that prevents an image blur by moving a vibration isolating device as described in claim 6. Therefore, it can be seen that the Imafuji device lacks a controlling device that gradually decreases a driving amount of the vibration isolating device to stop the vibration isolating device at a position after the switching device turns off the vibration isolation. Miyamoto discloses the use of a controlling device that gradually decreases a driving amount of the vibration isolating device to stop the vibration isolating device at a position after the switching device turns off the vibration isolation (column 26, lines 35-41; column 32, lines 26-31; and figure 20: S1015-S1019; when the shutter button is released, S1015, it is considered to be turning off the vibration isolating device). Miyamoto teaches the use of gradually decreasing a driving amount in order to correctly center the lens (column 26, lines 10-15). Therefore, it would have been obvious to one of ordinary skill in the art to modify the Imafuji device to include the use of gradually decreasing a driving amount of the vibration isolating device to stop the isolating device at a position after the isolating device is turned off so as to correctly center the lens.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chriss S. Yoder, III whose telephone number is (571) 272-7323. The examiner can normally be reached on M-F: 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc-Yen Vu can be reached on (571) 272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CSY
February 1, 2006


NGOC-YEN VU
PRIMARY EXAMINER